## **APPENDIX B**

- **B-1 RESULTS OF SOIL VAPOR ANALYSES**
- **B-2 CHAIN-OF-CUSTODY FORMS**
- B-3 DAILY OPENING, CLOSING, AND CONTINUING CALIBRATION VERIFICATION REPORTS

## **APPENDIX B-1**

## **RESULTS OF SOIL VAPOR ANALYSES**



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	AMBIENT	SVW30-	SVW30-	SVW30-	SVW30-	SVW30-	SVW30-VPE-	SVW31-	SVW31-	SVW31-	SVW31-	SVW12-	SVW12-VPC-	SVW12
	BLANK	VPA-01	VPB-02	VPC-03	VPD-04	VPE-05	06 DUP	VPA-07	VPB-08	VPD-09	VPE-10	VPC-11	12 DUP	VPD-13
DATE	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/0
SAMPLING DEPTH (feet)		17	30	40	50	65	65	20	35	55	65	60	60	76
VOLUME WITHDRAWN (cc)		128	180	220	260	320	440	140	200	280	320	300	420	364
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	11	1	1	1	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd						
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd 	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd		nd 	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd t	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd 	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1.2.2-TETRACHLORO ETHANE	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1.1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1.2-TRICHLORO ETHANE	nd	nd	nd	nd 	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	.nd nd	nd	nd	nd	nd	nd .	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	2.57												······································	
1,4 DIFLUORO BENZENE	93%	98%	97%	97%	97%	98%	100%	99%	96%	91%	94%	90%	96%	97%
4 BROMOFLUORO BENZENE ND INDICATES NOT DETECTED AT A DETECTION	94%	99%	99%	98%	101%	100%	102%	99%	98%	94%	97%	93%	99%	98%

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	AMBIENT	AMBIENT	SVW30-VPA-	SVW30-VPA-	SVW30-VPB-	SVW30-VPB-	SVW30-VPC-	SVW30-VPC-	SVW30-VPD-	SVW30-VPD-
	BLANK	BLANK	01	01	02	02		03	04	04
DATE	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02		09/04/02	09/04/02	09/04/02
SAMPLING DEPTH (feet)			17	17	30	30	40	40	50	50
VOLUME WITHDRAWN (cc)			128	128	180	180	220	220	260	260
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	200
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	:
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd		nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd		nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	- nd	nd	nd	nd	- nd	nd	nd	nd	nd*	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd		nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd 
TOLUENE	nd	nd	nd	nd	nd	nd	nd		nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd		nd nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	. nd nd	nd	nd nd	nd	nd
SURROGATES			,,,	114	, iid	nu nu	nu	nu	nd	nd
1,4 DIFLUORO BENZENE	8.6	14.5	8.6	15.3	8.6	15.2	0.0	45.4		
4 BROMOFLUORO BENZENE	17.8	31.5	17.8	32.9	17.8	32.9	8.6 17.8	15.1 32.7	8.6	15.2
ND INDICATES NOT DETECTED AT A DETECTION LI		APOR FOR	EACH COMPO	IND.	17.0	32.9	17.8	32.1	17.8	33.6

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW30-VPE-	SVW30-VPE-	SVW30-VPE-	SVW30-VPE-	SVW31-VPA-	SVW31-VPA-	SVW31-VPB-	SVW31-VPB-	SVW31-VPD-	SVW31-VPD-
	05	05		06 DUP		07	:		09	:
DATE	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02
SAMPLING DEPTH (feet)	65	65	65	65	20	20	35	35	55	55
VOLUME WITHDRAWN (cc)	320	320	440	440	140	140	200	200	280	280
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1 1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd		nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd		nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd		nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd		nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd		nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	- nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd		nd	nd	
BENZENE	nd	nd	nd	nd	nd			nd	nd	
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd		nd	nd	nd
SURROGATES		······································				110	110	110	na	nu :
1,4 DIFLUORO BENZENE	8.6	15.3	8.6	15.6	8.6	15.5	8.6	15.0	8.6	14.2
4 BROMOFLUORO BENZENE	17.8	33.3	17.8	34.2	17.8			32.7	17.8	31.3
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1.0 UG/I	-VAPOR FOR	EACH COMPO	UND			,,,,			

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW31-VPE-10	SVW31-VPE-10	SVW12-VPC-11	SVW12-VPC-11	SVW12-VPC-12	SVW12-VPC-12	SVW12-VPD-13	SVW12-VPD-13
					DUP	DUP		
DATE	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02
SAMPLING DEPTH (feet)	65	65	60	60	60	60	76	76
VOLUME WITHDRAWN (cc)	320	320	300	300	420	420	364	364
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	· nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nđ	nd	nd	nd	- nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	8.6	14.7	8.6	14.0	8.6	15.0	8.6	15.2
4 BROMOFLUORO BENZENE	17.8	32.3	17.8	31.0	17.8	32.9	17.8	32.8
ND INDICATES NOT DETECTED AT A DETECTION I	LIMIT OF 1.0 UG/L-VA	POR FOR EACH O	COMPOUND					

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK 09/06/02 07:34  -1 1 1 nd nd nd nd	VPB-14 09/06/02 07:56 9 96 1 1	VPA-15 09/06/02 08:19 20 140 1 1	VPB-16 09/06/02 08:42 35 200 1 1	VPB-17 09/06/02 09:04 21 144 1 1	18 DUP 09/06/02 09:26 21 264 1	VPC-19 09/06/02 09:49 33 192 1	VPA-20 09/06/02 10:11 10 100 1	VPC-21 09/06/02 10:33 40 220 1	VPD-22 09/06/02 10:56 47 248 1	VPB-23 09/06/02 12:19 20 140 1	24 DUP 09/06/02 12:43 20 260	VPD-25 09/06/02 13:06 56 284 1
ANALYSIS TIME SAMPLING DEPTH (feet) VOLUME WITHDRAWN (cc) VOLUME INJECTED DILUTION FACTOR  CARBON TETRACHLORIDE CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	07:34  1 1 nd nd nd	07:56 9 96 1 1	08:19 20 140 1 1	08:42 35 200 1 1	09:04 21 144 1	09:26 21 264 1	09:49 33 192 1	10:11 10 100 1	10:33 40 220 1	10:56 47 248 1	12:19 20 140 1	12:43 20 260 1	13:06 56 284 1
SAMPLING DEPTH (feet) VOLUME WITHDRAWN (cc) VOLUME INJECTED DILUTION FACTOR  CARBON TETRACHLORIDE CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd nd	9 96 1 1 nd	20 140 1 1	35 200 1 1	21 144 1 1	21 264 1	33 192 1	10 100 1	40 220 1	47 248 1	20 140 1	20 260 1	56 284 1
VOLUME WITHDRAWN (cc) VOLUME INJECTED DILUTION FACTOR  CARBON TETRACHLORIDE CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd	96 1 1 nd	140 1 1 nd	200 1 1 nd	144 1 1	264 1	192 1	100 1	220 1	248 1	140 1	260 1	56 284 1
VOLUME INJECTED DILUTION FACTOR  CARBON TETRACHLORIDE CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd	1 1 nd nd	1 1 nd	1 1 nd	1 1	1	1	1	1	248 1	140 1	260 1	284 1
DILUTION FACTOR  CARBON TETRACHLORIDE  CHLOROETHANE  CHLOROFORM  1,1-DICHLORO ETHANE	nd nd nd	nd	1 nd	1 nd	1 1	1 1			1	1	1	1	1
CARBON TETRACHLORIDE CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd	nd	nd	nd	1 nd	1	1	1	-	1	•	•	
CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd	nd			nd							1	1
CHLOROETHANE CHLOROFORM 1,1-DICHLORO ETHANE	nd nd nd	nd									<del></del>		
CHLOROFORM 1,1-DICHLORO ETHANE	nd nd		na			nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	na		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
·, · · · · · · · · · · · · · · · · · ·			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1-DICHLORO ETHENE		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
,	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	24	14	2.3
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	1.00	nd	nd	nd	nd	nd	nd	nd
SURROGATES						<del></del>							- Hu
1,4 DIFLUORO BENZENE	93%	94%	95%	97%	95%	97%	94%	96%	97%	96%	96%	95%	96%
4 BROMOFLUORO BENZENE ND INDICATES NOT DETECTED AT A DETECTION L	96%	96%	99%	100%	97%	100%	99%	99%	101%	99%	101%	100%	101%

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2

GC SHIMADZU 14A

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR

AREA COUNTS

CHLOROETHANE  CHLOROETHANE  INDICALCROETHANE  IN	SAMPLE NAME	AMBIENT	AMBIENT S	SVW5-VPB-14 SV	/W5-VPB-14: S	SVW7-VPA-15 S	VW7-VPA-15: S	W7-VPB-16 S	VW7-VPB-16: S	SVW1-VPB-17	SVW1-VPB-17
ANALYSIS TIME 7.34 7.34 7.36 7.36 7.36 7.36 7.36 7.36 7.36 7.36		BLANK									
ANALYSISTIME 7:34 7:34 7:56 7:56 8:19 8:19 8:42 8:42 0:04 0:04 SAMPLING DEPTH (feet) 9 9 9 20 20 20 35 35 21 21 VOLUME WITHDRAWN (cc) 9 96 96 140 140 200 200 144 144 VOLUME NIGECTED 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DATE	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02
SAMPLING DEPTH (feet) 96 9 20 20 35 35 21 21 21 VOLUME WITHDRAWN (cc) 96 96 96 140 140 200 200 144 144 144 150 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ANALYSIS TIME	7:34	7:34	7:56	7:56	8:19	8:19		1		
VOLUME WITHDRAWN (cs)	SAMPLING DEPTH (feet)			9	9	20	20		:		
VOLUME INJECTED	VOLUME WITHDRAWN (cc)			96	96		1				
AREA  RT	VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	DILUTION FACTOR	1	1	. 1	1	1	1	1	1	· 1	1
CARBON TETRACHLORIDE  nd  nd  nd  nd  nd  nd  nd  nd  nd  n		RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CHLOROETHANE	CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd .	nd	<del></del>		
CHLOROFORM    nd   nd   nd   nd   nd   nd   nd   n	CHLOROETHANE	nd	nd	nd	nd	nd					nd
1.1-DICHLORO ETHANE  nd	CHLOROFORM	nd	nd	nd	nd	nd	nd				nd
1,2-DICHLORO ETHANE  nd  nd  nd  nd  nd  nd  nd  nd  nd  n	1,1-DICHLORO ETHANE	nd	nd	nd	nd						nd
1.1-IDCHLORO ETHENE  nd	1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd					nd
CIS-12-DICHLORO ETHENE	,	nd	nd	nd	nd	nd	nd				nd
TRANS-1,2-DICHLORO ETHENE         nd	CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd			nd
DICHLOROMETHANE         nd		nd	nd	nd	nd						nd
TETRACHLORO ETHENE  nd	DICHLOROMETHANE	nd	nd	nd	nd	nd		nd			
1,1,1,2-TETRACHLORO ETHANE	TETRACHLORO ETHENE	nd	nd	nd	nd	nd					
1.1.2-TETRACHLORO ETHANE	1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd			
1.1.1-TRICHLORO ETHANE  1.1.2-TRICHLORO ETHENE  1.1.2-TRICHLORO ETHENE  1.1.2-TRICHLOROFLUOROMETHANE (FR11)  1.1.2-TRICHLOROFLUOROMETHANE (FR12)  1.1.2-TRICHLOROFLUOROMETHANE (FR12)  1.1.2-TRICHLOROFLUOROMETHANE (FR113)  1.1.2-TRICHLOROFLUOROMETHANE (FR113)  1.1.2-TRICHLOROFLUOROMETHANE (FR113)  1.1.2-TRICHLOROFLUOROETHANE (FR113)  1.1.2-TRICHLOROETHANE (FR113)  1.1.2-TRICHLOROETHANE (FR113)  1.1.2-TRICHLOROETHANE (FR113)  1.1.2-TRICHLOROETHANE (FR12)  1.1.2-TRICHLOROETHANE (FR113)  1.1.2-TRICHLOROETHANE (FR12)  1.1.2-TRICHLOROETHANE (FR12)	1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd					
1.1.2-TRICHLORO ETHANE  nd	1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd						
TRICHLORO ETHENE  nd  nd  nd  nd  nd  nd  nd  nd  nd  n	1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd					
VINYL CHLORIDE         nd	TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd			
TRICHLOROFLUOROMETHANE (FR11)         nd	VINYL CHLORIDE	nd	nd	nd	nd						
DICHLORODIFLUOROMETHANE (FR12)         nd		nd	nd	- nd	nd	nd	nd	_			
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)         nd		nd	nd	nd	nd	nd	nd	nd			
BENZENE         nd         nd <t< td=""><td>1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td></td><td></td><td></td></t<>	1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd			
CHLOROBENZENE         nd	BENZENE	nd	nd	nd	nd	nd	nd	nd	nd		
ETHYLBENZENE	CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd		
TOLUENE         nd         nd <t< td=""><td></td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td>nd</td><td></td><td></td></t<>		nd	nd	nd	nd	nd	nd	nd	nd		
m&p-XYLENES         nd	TOLUENE	nd	nd	nd	nd						
o-XYLENE         nd         <	m&p-XYLENES	nd	nd	nd	nd	nd					
SURROGATES         1,4 DIFLUORO BENZENE         8.6         14.5         8.6         14.6         8.6         14.8         8.6         15.1         8.6         14.8           4 BROMOFLUORO BENZENE         17.8         31.9         17.8         31.9         17.8         33.1         17.8         33.5         17.8         32.4	o-XYLENE	nd	nd	nd	nd						
4 BROMOFLUORO BENZENE 17.8 31.9 17.8 31.9 17.8 33.1 17.8 33.5 17.8 32.4	SURROGATES					***************************************		· · · · · · · · · · · · · · · · · · ·			
4 BROMOFLUORO BENZENE 17.8 31.9 17.8 31.9 17.8 33.1 17.8 33.5 17.8 32.4	1,4 DIFLUORO BENZENE	8.6	14.5	8.6	14.6	8.6	14.8	8.6	15 1	8.6	14.8
ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND						17.8					
	ND INDICATES NOT DETECTED AT A DETECTION L	IMIT OF 1.0 UG/L	-VAPOR FOR	EACH COMPOL	IND						

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW1-VPB-18	SVW1-VPB-18	SVW1-VPC-19	SVW1-VPC-19	SVW2-VPA-20	SVW2-VPA-20	SVW3-VPC-21	SVW3-VPC-21
	DUP	DUP				01112 117120	01110 11 0 21	01110 11 0 21
DATE	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02
ANALYSIS TIME	9:26	9:26	9:49	9:49	10:11	10:11	10:33	10:33
SAMPLING DEPTH (feet)	21	21	33	33	10	10	40	40
VOLUME WITHDRAWN (cc)	264	264	192	192	100	100	220	220
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	. nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ÉTHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	- nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	. nd
m&p-XYLENES	nd	nd.	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES							• • • • • • • • • • • • • • • • • • • •	
1,4 DIFLUORO BENZENE	8.6	15.1	8.6	14.7	8.6	15.0	8.6	15.1
4 BROMOFLUORO BENZENE	17.8	33.3	17.8	32.9	17.8	33.0	17.8	33.6
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1.0 UG/L-V	APOR FOR EACH	COMPOUND					

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW3-VPD-22	SVW3-VPD-22	SVW4-VPB-23	SVW4-VPB-23	SVW4-VOB-24	SVW4-VOB-24	SVW4-VPD-25	SVW4-VPD-25
					DUP	DUP		
DATE	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02	09/06/02
ANALYSIS TIME	10:56	10:56	12:19	12:19	12:43	12:43	13:06	13:06
SAMPLING DEPTH (feet)	47	47	20	20	20	20	56	56
VOLUME WITHDRAWN (cc)	248	248	140	140	260	260	284	284
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
OADDON TETDA OW OBJECT	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	9.1	28.7	9.1	16.0	9.0	2.7
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	2.7 nd
TRICHLOROFLUOROMETHANE (FR11)	nd	- nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd		
o-XYLENE	nd	nd	nd	nd	nd	nd	nd nd	nd nd
SURROGATES				110		i i d	na	na
1,4 DIFLUORO BENZENE	8.6	15.0	8.6	15.0	8.6	14.8	8.6	15.0
4 BROMOFLUORO BENZENE	17.8	33.2	17.8	33.6	17.8	33.3	17.8	33.6
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1.0 UG/L-V	APOR FOR EACH	COMPOUND			00.0	17.0	33.0

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR SOIL VAPOR DATA IN UG/L-VAPOR

	AMBIENT	SVW11-	SVW11-	SVW32-	SVW32-	SVW32-VPC-	SVW32-	SVW32-	SVW32-	SVVW32-	SVW32-VPJ	SVW32-VPJ-	SVW14-	SVW14-
	BLANK	VPA-26	VPE-27	VPB-28	VPC-29	30 DUP	VPD-31	VPE-32	VPH-33	VPI-34	35	36 DUP	VPA-37	VPB-38
DATE	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02
ANALYSIS TIME	07:54	08:17	08:39	09:02	09:25	09:47	10:10	10:32	10:55	11:17	12:04	12:28	12:51	13:14
SAMPLING DEPTH (feet)		20	96	40	55	55	70	90	155	180	195	195	5	10.14
VOLUME WITHDRAWN (cc)		140	444	220	280	400	340	420	680	780	840	860	80	100
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1	1	1	1	100
DILUTION FACTOR	1	11	11	1	1	1	1	1	i i	i	1	1	i	1
CARBON TETRACHLORIDE	nd	nd			- 1									
CHLOROETHANE			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1.2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd -	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	- nd	nd	nd	nd	nd	nd -	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.2	1.9	1.1	nd	1.1
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	2.3	nd	nd	1.1
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd ·	nd	nd	nd
SURROGATES						······································		***************************************						
1,4 DIFLUORO BENZENE	93%	37%	94%	95%	94%	94%	96%	94%	96%	92%	92%	94%	90%	92%
4 BROMOFLUORO BENZENE ND INDICATES NOT DETECTED AT A DETECTION	100%	101%	99%	97%	96%	99%	101%	102%	100%	99%	99%	98%	96%	95%

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	AMBIENT	AMBIENT	SVW11-VPA-	SVW11-VPA-	SVW11-VPE-	SVW11-VPE-	SVW32-VPB-	SVW32-VPB-i	SVW32-VPC-	SVW32-VPC-
	BLANK	BLANK	26	26	27	27	28	28	29	29
DATE	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02
ANALYSIS TIME	7:54	7:54	8:17	8:17	8:39	8:39	9:02	9:02	9:25	9:25
SAMPLING DEPTH (feet)			20	20	96	96	40	40	55	55
VOLUME WITHDRAWN (cc)			140	140	444	444	220	220	280	280
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	. nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd	- nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES									110	110
1,4 DIFLUORO BENZENE	8.6	14.5	8.6	15.1	8.6	14.6	8.6	14.8	8.6	14.6
4 BROMOFLUORO BENZENE	17.7	33.3	17.8	33.9	17.8	32.9	17.8	32.3	17.8	32.2
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1.0 UG	/L-VAPOR FC		OUND			.7.0	02.0	17,0	52.2

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW32-VPC-	SVW32-VPC-	SVW32-VPD-	SVW32-VPD-	SVW32-VPE-	SVW32-VPE-	SVW32-VPH-	SVW32-VPH-	SVVW32-VPI-	SVVW32-VPI-
	30 DUP	30 DUP	31	31	32	32	. 33	33	34	34
DATE	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02
ANALYSIS TIME	9:47	9:47	10:10	10:10	10:32	10:32	10:55	10:55	11:17	11:17
SAMPLING DEPTH (feet)	55	55	70	70	90	90	155	155	180	180
VOLUME WITHDRAWN (cc)	400	400	340	340	420	420	680	680	780	780
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	. nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	· nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	8.0	2.5
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES										
1,4 DIFLUORO BENZENE	8.6	14.7	8.6	14.9	8.6	14.6	8.6	15.0	8.6	14.3
4 BROMOFLUORO BENZENE	17.8	33.1	17.8	33.6	17.8	34.0	17.8	33.3	17.8	33.1
ND INDICATES NOT DETECTED AT A DETECTIO	N LIMIT OF 1.0 L	IG/L-VAPOR FC	R EACH COM	POUND	<del></del>		30K1 24 11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			<del></del>

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW32-VPJ-35	SVW32-VPJ-35	SVW32-VPJ-36	SVW32-VPJ-36	SVW14-VPA-37	SVW14-VPA-37	SVW14-VPB-38 S	SVW14-VPR-38
			DUP	DUP				
DATE	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02	09/09/02
ANALYSIS TIME	12:04	12:04	12:28	12:28		12:51	13:14	13:14
SAMPLING DEPTH (feet)	195	195	195	195	5	5	10	10
VOLUME WITHDRAWN (cc)	840	840	860	860	80	80	100	100
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	. nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	. nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	- nd	nd	nd	nd	_	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	no
BENZENE	7.9	4.0	7.9	2.4	nd	nd	8.0	2.4
CHLOROBENZENE	nd	nd	nd	nd	nd		nd	no
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	no
TOLUENE	11.6	4.7	nd	nd	nd	nd	11.6	2.1
m&p-XYLENES	nd	nd	nd	nd	nd		nd	no
o-XYLSNE	nd	nd	nd		nd		nd	no
SURROGATES								
1,4 DIFLUORO BENZENE	8.6	14.4	8.6	14.6	8.6	14.1	8.6	14.4
4 BROMOFLUORO BENZENE	17.8		17.8	32.6				31.8
ND INDICATES NOT DETECTED AT A DETECTION	ON LIMIT OF 1.0 U	G/L-VAPOR FOR	R EACH COMPO					

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	AMBIENT	SVW13-	SVW9-	SVW9-	SVW9-VPB-	SVW9-	SVW9-	SVW9-	SVW10-	SVW10-	SVW10-VPD-	SVW8-	SVW8-	SVW8-	SVW17-
	BLANK	VPB-39	VPA-40	VPB-41	42 DUP	VPC-43	VPD-44	VPE-45	VPB-46	VPD-47	48 DUP	VPC-49	VPD-50	VPE-51	VPC-52
DATE	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02
ANALYSIS TIME	07:35	07:57	08:20	08:43	09:05	09:27	09:49	10:11	10:33	10:55	11:17	12:08	12:31	12:54	13:20
SAMPLING DEPTH (feet)		20	20	35	35	50	70	87	35	69	69	50	70	90	36
VOLUME WITHDRAWN (cc)	_	140	140	200	320	260	340	408	200	336	456	260	340	420	204
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1	1	200	1	420	204
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE															
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	. nd	nd	nd	nd	nd	nd	. nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd			nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd 	nd d	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd.	nd	nd	nd	nd			nd	nd	nd ,
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd 	ņd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd nd	nd nd	nd nd	nd nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd				nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	55
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd				nd d	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	1.5	nd nd	nd	nd	nd 	nd	nd	nd	1.6
m&p-XYLENES	nd	nd	nd	nd	nd			nd	nd	nd	nd	nd	nd	nd	3.8
o-XYLENE	nd	nd	nd	nd	nd	nd nd	nd nd	nd	nd	nd	nd	nd	nd	nd	4.8
SURROGATES			114	110	TIG	nu	nu	nd	nd	nd	nd	nd	nd	nd	2.4
1,4 DIFLUORO BENZENE	90%	91%	93%	94%	92%	92%	91%	90%	020/	000/	000/	0704			
4 BROMOFLUORO BENZENE	93%	94%	98%	101%	96%	92% 98%	91% 97%	90% 97%	92% 100%	92% 98%	90%	87%	90%	92%	95%
ND INDICATES NOT DETECTED AT A DETECTIO		0 UG/L-\/AF	POR FOR F	ACH COMP	OLIND	30 /0	3170	9170	100%	98%	95%	92%	96%	97%	93%

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	AMBIENT	AMBIENT	SVW13-VPB-	SVW13-VPB-	SVW9-VPA-	SVW9-VPA-	SVW9-VPB-	SVW9-VPB-	SVW9-VPB-	SVW9-VPB-
<u> </u>	BLANK	BLANK	39	39	40	40	41	41	42 DUP	42 DUP
DATE	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02
ANALYSIS TIME	7:35	7:35	7:57	7:57	8:20	8:20	8:43	8:43	9:05	9:05
SAMPLING DEPTH (feet)			20	20	20	20	35	35	35	35
VOLUME WITHDRAWN (cc)			140	140	140	140	200	200	320	320
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	. nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	- nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd nd
SURROGATES	·····					7.0	110	iid.	ng -	TIQ.
1,4 DIFLUORO BENZENE	8.6	14.0	8.6	14.2	8.6	14.5	8.6	14.6	8.6	14.3
4 BROMOFLUORO BENZENE	17.8	30.9	17.8	31.5	17.8	32.7	17.8	33.7	17.8	32.2
ND INDICATES NOT DETECTED AT A DETECTION L	IMIT OF 1.0 UG/L			OUND		52.7	17.0	33.7	17.0	32.2
ANALYSES DEDECOMED ON OUT IN OA BOUGHOU							_ ·			

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE

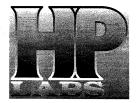


HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	SVW9-VPC-	SVW9-VPC-	SVW9-VPD-	SVW9-VPD-	SVW9-VPE-	SVW9-VPE-	SVW10-VPB-	SVW10-VPB-	SVW10-VPD-	SVW10-VPD
	43	43	44	44	45	45	46	46	47	4
DATE	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02
ANALYSIS TIME	9:27	9:27	9:49	9:49	10:11	10:11	10:33	10:33	10:55	10:55
SAMPLING DEPTH (feet)	50	50	70	70	87	87	35	35	69	69
VOLUME WITHDRAWN (cc)	260	260	340	340	408	408	200	200	336	336
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd.	no
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	n
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd		no
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd		nd	no
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
TRICHLOROFLUOROMETHANE (FR11)	nd	nď	nd	nd	nd	nd	- nd	nd	nd	no
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd.	nd	nd	nd	nd	nd	nd	no
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd nd	nd nd	no
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	
ETHYLBENZENE	nd	nd	nd	nd	nd	nd				no
TOLUENE	nd	nd	11.6	2.9	nd	nd	nd nd	nd	nd	n
m&p-XYLENES	nd	nd	nd	nd	nd		nd nd	nd	nd	no
o-XYLENE	nd	nd	nd	nd	nd	nd nd	nd nd	nd	nd	no
SURROGATES	110	110	na	110	nu nu	nu	na	nd	nd	n
1,4 DIFLUORO BENZENE	8.6	14.4	8.6	14.2	8.6	14.1	8.6	14.4	8.6	14.4
4 BROMOFLUORO BENZENE	17.8	32.7	17.8	32.5	17.8	32.5	17.8	14.4 33.5	17.9	14.4 32.1
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1 0 UG					52.0	17.0	55.5	17.3	32.

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR AREA COUNTS

SAMPLE NAME		SVW10-VPD-	SVW8-VPC-	SVW8-VPC-	SVW8-VPD-	SVW8-VPD-	SVW8-VPE-	SVW8-VPE-	SVW17-VPC-	SVW17-VPC-
	48 DUP	48 DUP	49	49	50	50	51	51	52	52
DATE	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02	09/10/02
ANALYSIS TIME	11:17	11:17	12:08	12:08	12:31	12:31	12:54	12:54	13:20	13:20
SAMPLING DEPTH (feet)	69	69	50	50	70	70 🞚	90	90	36	36
VOLUME WITHDRAWN (cc)	456	456	260	260	340	340	420	420	204	204
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
CARRON TETRACIII ODIDE	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	. nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd	· nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	8.0	117
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	<sub>.</sub> nd	nd	nd	nd	nd	15.2	2.8
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	11.8	7.6
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	15.5	10.1
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	16.3	4.2
SURROGATES										
1,4 DIFLUORO BENZENE	8.6	14.1	8.6	13.6	8.6	14.0	8.6	14.3	8.6	14.8
4 BROMOFLUORO BENZENE	17.8	31.6	17.8	30.6	17.8	32.2	17.8	32.5	17.8	31.1
ND INDICATES NOT DETECTED AT A DETECTION	LIMIT OF 1.0 UG	L-VAPOR FOR	REACH COMP	DUND						

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	AMBIENT	SVW36-VPB-53	SVW36-VPB-54	SVW36-VPC-55	SVW36-VPD-56	SVW36-VPE-57	SVW33-VPA-58	SVW33-VPD-59	SVW33-VPD-6
DATE	BLANK		DUP						DUP
· · · <del>-</del>	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02
ANALYSIS TIME	07:20	07:43	08:06	08:28	08:51	09:14	09:38	10:01	10:24
SAMPLING DEPTH (feet)		35	35	55	75	92	20	85	85
VOLUME WITHDRAWN (cc)		200	320	280	360	428	140	400	520
VOLUME INJECTED	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd							
CHLOROETHANE	nd		nd 	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd 	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE		nd	nd						
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd - d	nd	nd						
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
1.1.1.2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	_ nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd	nd	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
THYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
n&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES									
1,4 DIFLUORO BENZENE	95%	90%	91%	88%	89%	94%	92%	89%	90%
4 BROMOFLUORO BENZENE	103%	96%	96%	93%	96%	101%	100%	95%	98%
ND INDICATES NOT DETECTED AT A DETECTION I									

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	SVW33-VPE-61	SVW33-VPF-62	SVW33-VPG-63	SVW33-VPJ-64	SVW26-VPF-65		SVW26-VPG-67	SVW26-VPH-68
DATE	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	DUP 09/11/02	09/11/02	00/44/05
ANALYSIS TIME	10:47	11:09	12:01	12:24	12:47	13:09		09/11/02
SAMPLING DEPTH (feet)	105	120	140	200	12.47		13:32	13:55
VOLUME WITHDRAWN (cc)	480	540	620	860		115	140	160
VOLUME INJECTED	1	1	1	000	520	640	620	700
DILUTION FACTOR	1	1	1	1	1	1	1	1
			· · · · · · · · · · · · · · · · · · ·	<del></del>	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
CARBON TETRACHLORIDE	3.2	1.1	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	nd	nd	nd -	nd	nd	nd	nd -	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	1.1
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES				*				.,,
1,4 DIFLUORO BENZENE	90%	90%	90%	90%	90%	90%	93%	88%
4 BROMOFLUORO BENZENE	96%	98%	98%	97%	97%	97%	103%	96%
ND INDICATES NOT DETECTED AT A DETECTION	N LIMIT OF 1.0 UG/L	-VAPOR FOR EA	CH COMPOUND	<del></del>	-			

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)



HP Labs Project #GF090302T2
GC SHIMADZU 14A
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8021) ANALYSES OF SOIL VAPOR
AREA COUNTS

SAMPLE NAME	AMBIENT	AMBIENT	SVW36-VPB-	SVW36-VPB-	SVW36-VPB-	SVW36-VPB-	SVW36-VPC-	SVW36-VPC-	SVW36-VPD-	SVW36-VPD-
	BLANK	BLANK	53	53	54 DUP	54 DUP	55	55	56	56
DATE	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02	09/11/02
ANALYSIS TIME	7:20	7:20	7:43	7:43	8:06	8:06	8:28	8:28	8:51	8:51
SAMPLING DEPTH (feet)			35	35	35	35	55	55	75	75
VOLUME WITHDRAWN (cc)			200	200	320	320	280	280	360	360
VOLUME INJECTED	1	1	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROETHANE	nd	nd	nd	nd	nd	nd	nd.	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	. nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VINYL CHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROFLUOROMETHANE (FR11)	· nd	nd	nd	nd	nd .	nd	nd	nd	nd	nd
DICHLORODIFLUOROMETHANE (FR12)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES				***************************************						
1,4 DIFLUORO BENZENE	8.6	14.8	8.6	14.0	8.6	14.2	8.6	13.8	8.6	13.9
4 BROMOFLUORO BENZENE	17.7	34.5	17.8	32.1	17.8	31.9	17.8	31.2	17.8	31.9
ND INDICATES NOT DETECTED AT A DETECTION L				OUND 32.1	17.8	31.9	17.8	31.2	17.8	

ANALYSES PERFORMED ON-SITE IN CA DOHS MOBILE LABORATORY (CERT #1667)

ANALYSES PERFORMED BY: MARK BURKE